Wetlands and water movement

Wetlands play an important role in the natural movement of water both above and below ground. When water from melting snow or rain runs into a wetland, it is stored there until it evaporates or soaks into the ground. Because wetlands release water slowly, one of the best known hydrologic benefits of wetlands is flood control.

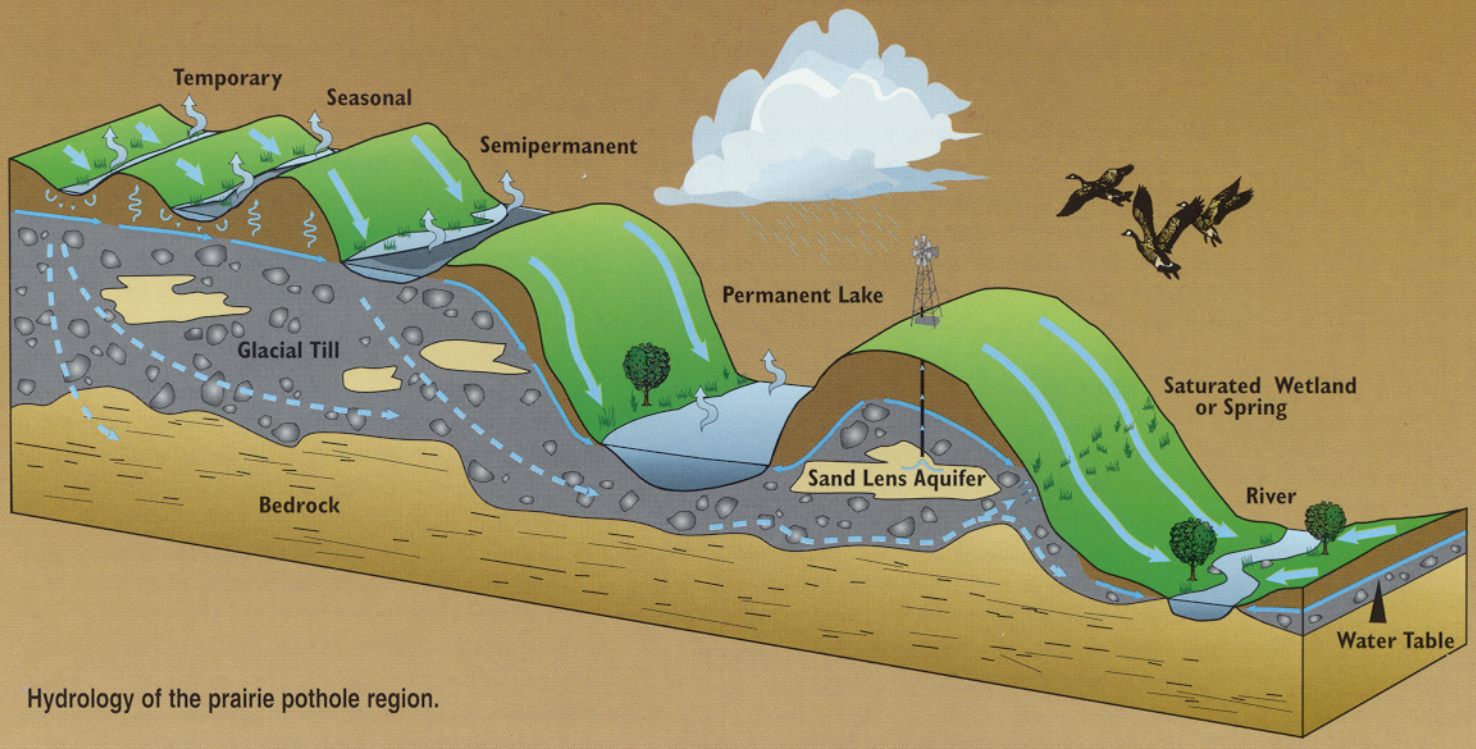
Wetlands usually lie within deeper depressions that are only filled during very wet years. If a wetland is drained, water from the depression may have nowhere to collect and will spill into streams and spread over low-lying properties.

About 16,500 wetlands out of 50,200 (33%) in the Vermillion River watershed in southeastern South Dakota flow into artificial drainage ditches. Restoring these drained wetlands could store an amount of water roughly equal to half the annual flow on the flood-prone Vermillion River in a wet year.

The water in wetlands that soaks into the soil recharges ground water supplies, providing water for farm and home use. In fact, in the clay-rich soil areas in eastern South Dakota, the only significant source of ground water recharge may be wetlands. Ground water also may move upward, maintaining soil moisture during dry periods, thereby protecting crops, lawns, and other vegetation during drought.

Wetlands have other hydrologic functions, such as stabilizing stream flows and reducing pollutants entering rivers and lakes. About 239 South Dakota cities and towns use created wetlands for secondary or tertiary sewage treatment.

Wetlands store water and may help reduce flooding



Hydrology of the prairie pothole region.